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KCEA Review and Forecast

By Charles W. Hultman*

Although the recession predicted by many economists for the U.S. economy has thus far failed to materialize, it seems clear that a "leveling off" has occurred and that a downswing has simply been postponed for a time. Third quarter real GNP increased about 3.5 percent following the slight decline during the second quarter 1979. A recession—loosely defined as two successive quarters of declining GNP—is now projected by most national forecasting services to occur during the fourth quarter 1979 and the first part of 1980; however, gains would gradually occur throughout the remainder of 1980 and 1981.

A key element in the projections for 1980 and 1981 relates to the expected rate of inflation and governmental response through changes in credit conditions. The availability of credit and high mortgage rates has already affected the construction industry; the domestic auto industry is also in a weak position.

The Wharton Econometric Forecasting Associates, Inc. forecast of October 30, 1979 that is used as a basis for this forecast suggests a slight decline in national employment in agriculture, durable and nondurable manufacturing in 1980 as compared with 1979. New car sales are expected to decline slightly in 1980, but to increase significantly in 1981; a greater decrease is likely to occur in 1980 in the purchase of recreational vehicles and trucks. The Wharton forecast also suggests a decline of almost 8 percent in residential investment.

Other economic variables of key interest include the unemployment rate, which is expected to rise from slightly less than 6 percent in 1979 to somewhat above 7 percent for 1980. As measured by the Consumer Price Index for all Urban Consumers, the inflation rate is projected to abate only slightly, from about 11.2 percent in 1979 to about 10.5 percent in 1980.

During the past year, the Kentucky economy has continued to grow, although the unemployment rate has ranged from 5 to 6 percent in recent months. Employment gains have occurred between the third quarters of 1978 and 1979 in such industries as Transportation, Communications, and Public Utilities; Wholesale and Retail Trade; Finance, Insurance and Real Estate; Services; and State and Local Government, as well as in coal mining. Slight employment declines have occurred in durable and nondurable manufacturing and in contract construction.

State industry sectors that are most likely to experience employment declines during the coming years are coal mining, contract construction and motor vehicle transportation equipment related industries. Developments in coal mining depend to a great extent on federal government policies and action; many coal-producing areas of the state have not been able to sell all the amounts of coal they have on hand, or could readily extract. However, a strong commitment and appropriate action by the federal government could lead to employment gains in coal mining and related industries.

Recent reports concerning the value of Construction Contracts and Permit Authorized Construction of One-Family Residential Units (see Selected Indicators) suggest that difficulties may be experienced in the construction sector in the state. This is also suggested by the Kentucky Quarterly Econometric Model forecast of November 5, 1979 shown on pages 3-5 of this issue of *Review and Perspective*. The model projects a 12 thousand decline in employment in this sector in 1980. Employment decreases are also projected for manufacturing and wholesale and retail trade. However, Kentucky's Personal Income is projected to continue to expand by about 9 percent in current dollars in 1980; in real terms, the growth may be almost insignificant. Total employment will decline somewhat in 1980 but increase in 1981; the unemployment rate will also increase slightly in 1980.

In summary, the strength reflected in third quarter 1979 GNP is not expected to continue and the country may experience a mild recession in late 1979 and early 1980. Kentuckians can expect continued inflation, high interest rates, and, in all likelihood, growing unemployment in the contract construction industry, wholesale and retail trade, and in those firms providing components or a service to the motor vehicle transportation equipment industry.

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*Charles W. Hultman is the Associate Dean of the Office for Research, College of Business and Economics, University of Kentucky, and Chairman of the KCEA.

With his appointment as Governor Brown's Secretary of the Development Cabinet, Larry Townsend has joined the Kentucky Council of Economic Advisors as an *ex-officio* member. A graduate of the University of Louisville, Mr. Townsend has wide-ranging experience in both business and government. In 1975-76 he served as Kentucky's Commerce Commissioner and during that time was Secretary to the Governor's Economic Development Commission. We welcome Mr. Townsend to membership on the Kentucky Council of Economic Advisors and look forward to his participation.

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Review & Perspective

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Charles G. Renfro, Acting Executive Director
Margaret O'Neill Adams, Editor

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This quarterly publication is intended, primarily, to provide forecasts and current information concerning the Kentucky economy. More generally it provides a forum for the publication of short, expository articles dealing with current research or information systems, the focus of which is some aspect of the Kentucky economy.

Articles submitted for publication should be sent to the Editor at the address given above. All submissions will be reviewed independently by persons recognized as knowledgeable in the specific subject discussed. However, the ultimate responsibility for content rests with the author.

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During the third quarter of 1979 several more training sessions in the use of the Frankfort version of the Kentucky Economic Information System (KEIS) were held. Those who participated were from the Departments of Commerce, Energy, and Local Government. In addition, the capabilites of the KEIS were demonstrated in the form of testimony before the Legislative Research Commission's Special Subcommitee on a Statewide Information System in September. Demonstrations of the KEIS were also scheduled for the Area Development District directors and their staffs to coincide with the monthly ADD directors' meeting in September.

The KEIS/Frankfort has been revised and updated several times during the past quarter in an attempt to assure that Frankfort users of the KEIS have the most current data and software available to them. State agency personnel who wish to schedule a KEIS/Frankfort training session, or who have any questions about the KEIS/Frankfort, should contact Margaret Adams, Manager, Kentucky Economic Information System, (606) 258-4626.

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In late September the Regional Economic Information System of the Bureau of Economic Analysis (U.S. Department of Commerce) released preliminary annual estimates of Kentucky personal income, by source, for 1978. At this time BEA also revised the estimates for these same data for 1973-77. All of these data are now available in the Kentucky Economic Information System. A summary Kentucky personal income table, 1977-78, is included in this issue of *Review and Perspective*, p. 12.

Upon receipt of the 1978 personal income data, final work was done on this year's *Kentucky Personal Income Report*. It includes state and national data for 1977 and 1978 and county and Area Development District data for 1976 and 1977. The county-level data were released by BEA in April 1979. The *Kentucky Personal Income Report*, a publication cooperatively produced by the KCEA and the Kentucky Department of Commerce, will be available during the first quarter, 1980.

* * *

On October 18, 1979, Professor Lawrence K. Lynch, Transylvania University, presented his projections for the future economic growth of Kentucky to a meeting of representatives from a number of state agencies. This forecast is the product of a study undertaken by Professor Lynch and Claud F. Porter and is an up-to-date assessment of the economic outlook for Kentucky for the remainder of this century. These projections are incorporated in "The Long-Term Growth of the Kentucky Economy, 1979 Update" by Lynch and Porter, published as the first in the series, *KCEA Studies in Applied Economic Research* (January 1980). Single copies of this paper are available upon request.

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(continued on p. 11)

Kentucky Econometric Model Forecast

By Charles G. Renfro*

This forecast for Kentucky is based upon an assumed two quarter decline in real GNP, the fourth quarter of 1979 and the first quarter of 1980. The forecast assumptions include predictions of the values of national economic variables taken from the October 30, 1979 *Pre-Meeting Control Forecast* made by the Wharton Econometric Forecasting Associates, using the Wharton Quarterly Econometric Model of the United States.

The likely impact on Kentucky of the projected two quarter real GNP decline, assumed by Wharton to be due in part to the new Federal Reserve Board monetary policies, is shown in tables on this page and pages 4 and 5 to include a four quarter decline in nonagricultural wage and salary employment, beginning in the fourth quarter of 1979. In late 1980, a recovery in employment is projected to begin; however, year-to-year, from 1979 to 1980, there is a net decline. In contrast, aggregate personal income continues to increase throughout the forecast period, but since the rate of inflation in both 1979 and 1980 may exceed 10 percent, the real income increase implied is negligible; in 1980, there could be a decline in real income.

The purpose of this forecast is simply to indicate the effect on Kentucky if the October 30 Wharton national forecast were to be realized. A more detailed assessment of the economic outlook is provided in the 1980 KCEA *Annual Report*, due to be published in January 1980. It is important to note also that all the figures that are shown for 1979 are *forecasts*. Only for certain months and quarters of 1979 have estimates so far been published; these can be retrieved from the Kentucky Economic Information System data banks. See also the "Technical Note" on page 12 of the September 1979 issue of *Review and Perspective*.

Charles G. Renfro is Acting Executive Director of KCEA.

ANNUAL SUMMARY TABLE
SELECTED ECONOMIC INDICATORS

Description	1979	1980	1981
Personal Income (Millions)	26215.4	28519.2	31753.2
% Chg.: Ky. Personal Income	13.34	8.79	11.34
Wage and Salary Disbursement	15876.1	17092.0	19225.0
Mfg. Wage & Salaries	4639.6	4956.2	5724.1
Non-Mfg. Wage & Salaries	11236.5	12135.8	13500.8
Non-Agri. Wage & Salary Empl.	1259.7	1237.7	1270.9
% Chg.: Ky. Non-Ag. Empl.	2.27	-1.75	2.69
Manufacturing Employment	292.2	285.5	302.9
Durable Goods	167.5	163.0	178.6
Non-Durable Goods	124.7	122.5	124.3
Non-Mfg., Non-Agri. Empl.	967.4	952.1	968.0
Civilian Labor Force	1622.9	1618.8	1670.6
Ky. Unemployment Rate (%)	5.7	6.2	6.2

Forecast Date: November 5, 1979.

QUARTERLY FORECAST TABLE
SELECTED ECONOMIC INDICATORS

Description	1980.1	1980.2	1980.3	1980.4	1981.1	1981.2	1981.3	1981.4
Personal Income (Millions)	27733.3	28097.0	28759.1	29487.3	30205.9	31232.3	32343.2	33231.4
% Chg.: Ky. Personal Income	9.28	5.35	9.76	10.52	10.11	14.30	15.00	11.44
Wage and Salary Disbursement	16726.4	16885.1	17140.9	17615.6	18211.6	18921.4	19585.2	20181.6
Mfg. Wage & Salaries	4943.1	4906.3	4893.4	5082.0	5417.0	5639.2	5847.6	5992.6
Non-Mfg. Wage & Salaries	11783.3	11978.8	12247.5	12533.6	12794.5	13282.2	13737.6	14189.0
Non-Agri. Wage & Salary Empl.	1243.0	1237.0	1234.9	1235.8	1247.5	1264.3	1280.6	1291.3
% Chg.: Ky. Non-Ag. Empl.	-2.00	-1.92	-0.68	0.31	3.82	5.51	5.25	3.40
Manufacturing Employment	287.7	285.1	283.7	285.6	293.5	300.2	306.7	311.3
Durable Goods	163.9	162.5	161.8	164.0	171.4	176.9	181.5	184.6
Non-Durable Goods	123.8	122.6	121.9	121.7	122.1	123.3	125.2	126.7
Non-Mfg., Non-Agri. Empl.	955.3	951.9	951.2	950.2	954.0	964.1	973.9	980.1
Civilian Labor Force	1617.6	1615.5	1618.0	1624.1	1640.8	1663.5	1682.6	1695.3
Ky. Unemployment Rate (%)	6.1	6.3	6.4	6.5	6.4	6.3	6.2	6.0

Forecast Date: November 5, 1979.

selected indicators OF ECONOMIC ACTIVITY

These tables of selected indicators of economic activity were prepared by a special-purpose program of the Kentucky Economic Information System. The data in the tables are reported figures which were obtained from a variety of state and federal agencies, as well as from private firms.

UNITED STATES DATA

KENTUCKY DATA

	Jul. 1979	Aug. 1979	Sept. 1979	Qtr. III 1979	% Chg. 79-II 79-III	% Chg. 78-III 79-III
LABOR FORCE (000 PERSONS)						
LABOR FORCE, TOTAL CIVILIAN	1558.09	1585.89	1613.39	1585.79	3.89	-0.20
UNEMPLOYMENT RATE (NOT SEASONALLY ADJUSTED)	5.59	5.69	5.29	5.55	21.44	6.62
EMPLOYMENT, TOTAL, BY PLACE OF RESIDENCE (INCL. PERSONS ON STRIKE)	1470.50	1494.89	1527.79	1497.73	2.82	-0.56
EMPLOYMENT, AGRICULTURAL	74.79	85.50	90.69	83.66	14.24	-2.33
EMPLOYMENT, TOTAL NON-AGRICULTURAL WAGE AND SALARY	1264.29	1268.79	1287.19	1273.43	-0.46	2.03
EMPLOYMENT, BITUMINOUS COAL & LIGNITE MINING (SIC 12)	54.29	54.00	54.79	54.36	0.49	2.57
EMPLOYMENT, CONTRACT CONSTRUCTION	76.69	78.19	75.69	76.86	6.07	-1.99
EMPLOYMENT, TOTAL MANUFACTURING	289.89	287.29	288.19	288.46	-1.94	-0.64
EMPLOYMENT, MANUFACTURING, DURABLE	166.00	164.00	165.29	165.09	-2.92	-0.70
EMPLOYMENT, MANUFACTURING, NON-DURABLE	123.89	123.29	122.89	123.36	-0.61	-0.56
EMPLOYMENT, TRANSPORTATION, COMMUNICATIONS & PUBLIC UTILITIES	70.00	70.29	69.79	70.03	0.67	2.03
EMPLOYMENT, WHOLESALE & RETAIL TRADE	283.09	281.39	287.59	284.03	1.19	5.70
EMPLOYMENT, FINANCE, INSURANCE & REAL ESTATE (SIC 60-67)	51.19	50.79	50.50	50.83	0.59	3.24
EMPLOYMENT, SERVICES (SIC 70-80)	208.39	211.89	212.09	210.79	-0.29	3.53
EMPLOYMENT, CIVILIAN GOVERNMENT	225.69	229.89	243.79	233.13	-3.50	1.15
EMPLOYMENT, STATE & LOCAL GOVERNMENT	184.69	189.29	203.09	191.33	-4.96	0.68

	Jul. 1979	Aug. 1979	Sept. 1979	Qtr. III 1979	% Chg. 79-II 79-III	% Chg. 78-III 79-III
HOURS AND EARNINGS OF PRODUCTION WORKERS IN MANUFACTURING						
AVG WEEKLY HOURS, PROD WORKERS, TOTAL MANUFACTURING	39.00	39.00	39.39	39.09	-0.08	-0.59
AVG WEEKLY HOURS, PROD WORKERS, MANUFACTURING DURABLES	39.79	39.59	40.00	39.79	0.42	-0.58
AVG WEEKLY HOURS, PROD WORKERS, NON-DURABLE MANUFACTURING	37.89	38.19	38.58	38.19	-0.69	-0.43
AVG HOURLY EARN, PROD WORKERS, TOTAL MANUFACTURING	6.75	6.85	6.94	6.85	1.48	8.95
AVG HOURLY EARN, PROD WORKERS, MANUFACTURING DURABLES	7.11	7.28	7.39	7.26	2.92	12.30
AVG HOURLY EARN, PROD WORKERS, NON-DURABLE MANUFACTURING	6.22	6.27	6.33	6.29	0.68	4.36
AVG WEEKLY EARN, PROD WORKERS, TOTAL MANUFACTURING	263.25	267.15	273.15	268.10	1.59	8.38
AVG WEEKLY EARN, PROD WORKERS, MANUFACTURING DURABLES	283.07	288.07	296.00	289.35	3.45	11.64
AVG WEEKLY EARN, PROD WORKERS, NON-DURABLE MANUFACTURING	236.00	239.89	244.08	240.66	-1.98	5.91
INDEX OF PRICES RECEIVED BY KY FARMERS (1972=100)						
INDEX OF PRICES REC'D BY KY FARMERS, CROP AND LIVESTOCK PRODUCTS	164.93	161.74	165.51	163.73	3.41	12.86
INDEX OF PRICES REC'D BY KY FARMERS, LIVESTOCK PRODUCTS	177.18	168.69	181.14	176.34	-7.87	20.19
INDEX OF PRICES REC'D BY KY FARMERS, CROPS	155.95	155.23	156.20	155.79	-0.03	8.15
MINING (MILLIONS OF TONS, MILLIONS OF TAX DOLLARS)						
PHYSICAL OUTPUT OF COAL, EASTERN KENTUCKY - NOT SEAS ADJUSTED	5.30	7.98	9.48	23.89	-6.89	5.97
PHYSICAL OUTPUT OF COAL, WESTERN KENTUCKY - NOT SEAS ADJUSTED	4.01	3.88	3.74	11.64	-6.98	-5.84
AVG HOURLY EARN, PROD WORKERS, BITUMINOUS COAL AND LIG. MINING	10.64	10.59	10.73	10.85	-0.82	9.81
AVG WEEKLY EARN, PROD WORKERS, BITUMINOUS COAL & LIGNITE MINING	356.66	404.23	417.78	400.44	-14.35	4.18
AVG WEEKLY HOURS, PROD WORKERS, BITUMINOUS COAL & LIGNITE MINING	33.53	38.18	38.89	36.86	-13.66	-12.77
TAX RECEIPTS, COAL SEVERANCE, CONSOLIDATED TOTAL	13.31	13.41	14.62	39.34	*	-7.42
CONSTRUCTION (MILLIONS OF $, NO. OF PRIVATE RESID. UNITS - NOT SEAS ADJ)						
VALUE OF CONSTRUCTION CONTRACTS, RESIDENTIAL & NON-RES	256.91	154.29	166.95	578.16	41.56	52.35
PERMIT AUTHORIZED CONSTRUCTION, NO. OF 1-FAMILY RESID. UNITS	764.00	827.00	758.00	2349.00	-20.64	-14.73
VALUE OF PERMIT AUTHORIZED CONSTRUCTION, 1-FAMILY RESID. UNITS	30.50	36.07	30.31	96.89	-16.99	-4.92
PERMIT AUTHORIZED CONSTRUCTION, NO. OF RESID. UNITS, TOTAL	1119.00	1332.00	1543.00	3994.00	-2.96	32.69
VALUE OF PERMIT AUTHORIZED CONSTRUCTION, ALL UNITS, TOTAL	37.57	43.71	49.25	130.54	-7.26	-2.78
ELECTRIC POWER SALES (MIL KWH)						
ELECTRICITY SALES, KWH, TO INDUSTRIAL & COMMERCIAL CUST. INC. DOE	2825.90	2905.79	2843.44	8575.14	-11.89	9.67
ELECTRICITY SALES, KWH, TO INDUSTRIAL & COMMERCIAL CUST. EX.DOE	2177.45	2216.39	2154.50	6548.34	5.05	1.30
ELECTRICITY SALES, KWH, TO DEPARTMENT OF ENERGY	648.44	689.40	688.94	2026.79	-42.09	-33.09
RETAIL SALES (000$, 000 CARS)						
TAX RECEIPTS, GENERAL FUND, SALES AND GROSS RECEIPTS TAXES	53.34	55.05	39.20	147.60	*	-6.75
NEW PASSENGER CAR REGISTRATIONS, TOTAL, NOT SEAS. ADJ.	8.04	10.15	11.45	29.65	-33.58	-56.57
FINANCE AND INSURANCE (MILLIONS OF DOLLARS)						
NET LOANS MADE & ACQUIRED BY KY. SAVINGS & LOAN ASSOCIATIONS	69.38	73.36	58.87	201.62	-8.06	-1.43
SALES OF ORDINARY LIFE INSURANCE	341.01	358.38	328.31	1027.71	-4.08	9.20
SELECTED STATE GOVERNMENT RECEIPTS (000 $)						
TAX AND NON-TAX RECEIPTS, GENERAL FUND, TOTAL	93.24	154.89	108.52	356.66	*	0.29
TAX RECEIPTS, GENERAL FUND, SALES AND USE TAXES, TOTAL	49.58	50.94	34.68	135.22	*	-7.24
TAX RECEIPTS, GENERAL FUND, INCOME TAX, INDIVIDUAL	10.13	75.06	22.62	107.83	*	-5.89
TAX RECEIPTS, GENERAL FUND, INCOME TAX, CORPORATION	6.50	4.50	22.03	33.04	*	-11.03
TAX RECEIPTS, STATE ROAD FUND, STATE SHARE	20.64	36.03	18.16	74.84	*	-25.93
TAX RECEIPTS, STATE ROAD FUND, MOTOR FUELS NORMAL, TOTAL	10.18	23.50	9.19	42.87	*	-18.35
TAX RECEIPTS, STATE ROAD FUND, MOTOR VEHICLE USAGE TAX	8.61	10.70	7.86	27.17	*	-8.03

* =QUARTER TO QUARTER COMPARISONS NOT MEANINGFUL DUE TO SEASONAL VARIATION;
NA = NOT AVAILABLE AT PUBLICATION TIME

Can We Afford to Simplify the Kentucky Income Tax?

By Don M. Soule*

Two studies concerning simplification of the Kentucky income tax were prepared recently for the Kentucky Legislative Research Commission[1] in anticipation of this being among the major issues before the 1980 Kentucky General Assembly. This brief article, based upon the LRC studies, summarizes the problems of tax simplification and suggests some solutions.

The current Kentucky income tax is criticized on three levels. First, there is needless complication in taxpayer compliance and governmental administration merely because the Kentucky tax has become so different from the federal tax. The Kentucky income tax laws, adopted in 1936, have remained virtually unchanged, while the federal tax laws have been repeatedly revised. Differences in definitions and rules between the two taxes complicate the issue. For example, the Kentucky standard deduction is much smaller than that of the federal tax, causing many low-income households to be burdened in at least two ways. They must file tax returns and pay Kentucky tax even though they are too poor to pay any federal tax. Others itemize deductions in computing their Kentucky tax, a somewhat involved task, while taking the larger standard deduction for federal tax.

A second major criticism of the Kentucky income tax is that it distributes the tax burden unfairly. The federal tax is a more progressive tax, resulting in a reduced federal tax burden for some household types. The federal tax rates range from 14 percent to 70 percent of net taxable income, a ratio of one to five, while the Kentucky tax rates range from 2 percent to 6 percent, a ratio of one to three. Also, the Kentucky rate schedule's highest bracket is for income of "$8,000 and over," while the top federal brackets are "$100,000 and over" for an individual taxpayer and "$200,000 and over" for a married couple. Compounding the problem is the deduction of federal tax in computing the state tax. This feature not only further reduces the degree of Kentucky tax progression but also allows a needless loss of revenue to the federal treasury without an equal reduction in tax burdens on Kentuckians.

Another aspect of the charge of unfairness is that the Kentucky tax does not allow income-splitting for married couples, or similar tax advantages for unmarried heads of households, as does the federal tax. Thus the Kentucky tax burden on married couples and unmarried heads of households appears relatively too large. Also, federal tax regulations, but not those of Kentucky, allow loss carry-overs for unincorporated businesses and the taxation of small corporations as if they were partnerships. If one agrees with the widely-accepted principle that income taxes should reflect individual differences in taxpaying ability, the absence of loss carry-overs in Kentucky income taxation is difficult to justify.

The third level of criticism of the Kentucky income tax structure is the absence of change in the Kentucky tax law. This has caused an exaggerated growth in revenue yield and the development in state government of a dependency upon this ever-increasing revenue. During the years since 1936, the various dollar amounts in the Kentucky income tax regulations have remained basically unchanged while Kentucky money incomes, on the average, have increased greatly. This has moved the average household income into the highest tax bracket and has also caused relative shrinkage of the standard deduction and the personal credit. Consequently, income tax yields and income tax burdens have increased at a greater rate than money incomes. Relative to the federal income tax, the Kentucky tax yield has grown from 8.5 percent of the federal yield from Kentucky residents in 1961, to over 17 percent in 1976 and 1977 (see Table 1).

The exaggeration of growth in revenue yield can be viewed with concern for at least two reasons. Some say that Kentucky taxpayers have been taxed too greatly.[2] Others point out that Kentucky state government has too easily relied upon the exaggerated yield from an unchanged Kentucky income tax law to compensate for the lagging revenue growth, during an inflationary period, from the other types of taxes. For example, the gasoline tax (9 cents per gallon) and the motor vehicle license tax ($12.50 per vehicle) do not automatically produce more revenue when prices rise, and the property tax is limited in several ways to retard its revenue growth during inflation.

Proposals for income tax simplification are responses to these criticisms. Two plans are discussed here. In Plan A, the Kentucky tax is computed as a percentage of the taxpayer's federal tax; with Plan B, the taxpayer applies a Kentucky rate schedule to his federal taxable income. Both plans would bring a very high degree of simplification for most Kentuckians. With either plan, however, there would still be need to adjust for the differences in income which is taxable for federal purposes as compared to income which is taxable by the state government. As an example, federal laws prohibit states from taxing federal bond interest, although it allows federal taxation of this income. An adjustment in federal taxable income would therefore have to be made by the taxpayer who has this type of income in order to obtain his state taxable income. There are several other similar adjustments. Nevertheless, most Kentuckians do not have income which is treated differently by the state and federal governments and they therefore would not be affected by this additional complexity in a more simplified tax plan.

It is assumed that everyone favors tax simplication. Some effects of tax simplification, however, are not universally regarded as advantages. Plan A would cause the Kentucky tax burden to be distributed almost identically as the federal tax burden. Lower income households would pay less Kentucky tax and higher income households would pay more than they

*Don M. Soule is a Professor of Economics, University of Kentucky. He received the 1979 Kentucky Economic Association award of a lifetime membership in honor of his contributions to the study of the economy of Kentucky.

TABLE 1

KENTUCKY AND FEDERAL INCOME TAX REVENUE COLLECTED FROM KENTUCKY RESIDENTS, TAX YEARS 1961-77

Tax Year	Federal Tax Revenue (millions of dollars)	Kentucky Tax Revenue (millions of dollars)	Kentucky as Percent of Federal
1961	402	34.1	8.5
1962	451	37.2	8.2
1963	472	42.0	8.9
1964	468	51.1	10.9
1965	490	60.0	12.2
1966	585	69.2	11.8
1967	621	80.0	12.9
1968	766	92.6	12.1
1969	930	106.0	11.4
1970	920	118.8	12.9
1971	955	138.6	14.5
1972	1,095	161.6	14.8
1973	1,198	195.7	16.3
1974	1,540	228.6	14.8
1975	1,519	253.2	16.7
1976	1,686	293.0	17.4
1977	1,991p	342.3	17.2
1978	NA	NA	NA

Note: p = preliminary, NA = not available.

SOURCE: Federal tax revenue data from *Statistics of Income - Individual Income Tax Returns*, published by U.S. Internal Revenue Service, various years; and Kentucky tax revenue data from *Annual Report of the Kentucky Department of Revenue*, various years.

do presently. Many low income households would be excluded from the tax rolls altogether. Plan A would also bring tax reductions to married couples whose total income is not derived in equal parts from both partners, and to unmarried heads of households. Likewise, tax increases would result for single persons and for equal-earning married couples.

Some may regard the federal tax burden distribution as more fair and would therefore regard Plan A as a desirable means of simplifying the Kentucky tax. Others may wish to achieve a different distribution of tax burden for Kentuckians. Plan B is designed to allow such a difference by applying a Kentucky rate schedule to federal taxable net income. The main purpose is to achieve tax burden distributions that are different from those produced by Plan A, either as to degree of progression or tax treatment among household types, or both. A determination of whether Plan A or Plan B is superior is, of course, dependent upon the desired results from tax simplification. Both plans would bring much simplification, both would change the distribution of tax burdens, and perhaps most noteworthy, both could have significant effects upon revenue yield.

To understand further the effects of the plans discussed here, the effects upon Kentucky income tax revenue yield are examined. As indicated earlier, the Kentucky revenue was 8.5 percent of the federal yield from Kentuckians in 1961. If Plan A had been adopted in 1961, with a tax rate of 8.5 percent of the federal tax, the Kentucky income tax revenue would have been $169.2 million instead of the actual 1977 yield of $342.3 million. These differences illustrate the exaggerated growth in Kentucky income tax revenue. Of course, revenue loss would be shown to be less, over the years, if Plan A were assumed to have been adopted in later years and at higher percentages of the federal tax. But there would be a loss of revenue growth generally over the years.

Plan B is related to the federal tax only in the sense that Kentucky rate schedules would be applied to federal taxable net income. Consequently, the Kentucky tax revenue under Plan B would suffer lag in growth only from changes in the definition of federal taxable net income, whereas the revenue lag in Plan A would result from these changes, as well as from federal rate reductions. With either plan, however, the revenue dilemma is clear.

If either Plan A or Plan B is adopted for Kentucky income tax simplification, there are three choices for resolving the revenue dilemma: a) adjust the Kentucky tax rates (usually upward) every one or two year period, b) allow the state government to experience lag in expenditure growth, or c) raise additional tax revenue from other sources.

It is important to emphasize the reason why these choices seem to be necessary. Price increases, as in a long period of inflation, have the effect of increasing the costs incurred by government if it would continue to provide only the same amounts, types, and quality of services. Some tax types do not increase in revenue yield despite inflation. Therefore the Kentucky state government has relied upon the ever-growing income tax revenues, plus new tax sources such as the coal severance tax and higher rates of sales tax to finance government services. To change the income tax structure without

TABLE 2

POSSIBLE RATE SCHEDULES FOR KENTUCKY INCOME TAX–PLAN B

Federal Taxable Net Income (thousands of dollars)*	Schedule Y-2 Single Person, and Married Taxpayer Separate Return			Federal Taxable Net Income (thousands of dollars)*	Schedule Y-1 Married Taxpayer Joint Return			Federal Taxable Net Income (thousands of dollars)*	Schedule Z Unmarried Head of Household		
	Tax Rate	Tax Amounts			Tax Rate	Tax Amounts			Tax Rate	Tax Amounts	
		Full Bracket	Sum			Full Bracket	Sum			Full Bracket	Sum
0 & Under 2	2%	$ 40	$ 40	0 & Under 4	2%	$ 80	$ 80	0 & Under 3	2%	$ 60	$ 60
2 4	3	60	100	4 8	3	120	200	3 6	3	90	150
4 6	4	80	180	8 12	4	160	360	6 9	4	120	270
6 8	5	100	280	12 16	5	200	560	9 12	5	150	420
8 10	6	120	400	16 20	6	240	800	12 15	6	180	600
10 12	7	140	540	20 24	7	280	1,080	15 18	7	210	810
12 14	8	160	700	24 28	8	320	1,400	18 21	8	240	1,050
14 16	9	180	880	28 32	9	360	1,760	21 24	9	270	1,320
16 20	10	400	1,280	32 40	10	800	2,560	24 30	10	60	1,920
20 24	11	440	1,720	40 48	11	880	3,440	30 36	11	660	2,580
24 28	12	480	2,200	48 56	12	960	4,400	36 42	12	720	3,300
28 34	13	780	2,980	56 68	13	1,560	5,960	42 51	13	1,170	4,470
34 40	14	840	3,820	68 80	14	1,680	7,640	51 60	14	1,260	5,730
40 & Over	15	–	–	80 & Over	15	–	–	60 & Over	15	–	–

*Federal taxable net income is federal adjusted gross incomes less the sum of the personal exemptions and deductions (standard or itemized).

changing other taxes would likely cause lagging growth in total Kentucky tax revenue.

Of the three choices mentioned above, periodic adjustment of the tax rates is the most likely policy to be followed if it is desired that exaggerated revenue growth should continue. Tax rate adjustments will be a transition problem for the first budget year if Kentucky changes to either Plan A or Plan B, and likely will be a continuing problem.

What would be the suggested Plan A tax rate if tax year 1980 is the assumed first year under a revised Kentucky income tax law? The historic experience in Kentucky revenue yield relative to the federal tax, the indefinite nature of the current and future economic situation, the possibility that tax revision might include tax exemptions, and the need to leave margin for further adjustments, most easily made in a downward direction– these combine to suggest that the rate would need to be above 20 percent of the federal tax paid by Kentuckians.

Three rate schedules are suggested for Kentucky under Plan B, with rates ranging from 2 percent to 15 percent (see Table 2). The basic schedule (Y-2) was designed by extending the present Kentucky rate schedule upward from the present top bracket of "$8,000 and over" with a tax of 6 percent, to a top bracket of "$40,000 and over" with a tax of 14 percent. But, this basic schedule would apply only to single persons or to married taxpayers filing separate returns. Schedule Y-1 and Schedule Z, also shown in Table 2, have been designed for married couples and for unmarried heads of households, respectively. A comparison is presented in Table 3 of the tax amounts for Plan B with those for Plan A with 20 percent

TABLE 3

KENTUCKY TAX AMOUNTS UNDER ALTERNATE PLANS: PRESENT (1978) TAX; PLAN B; PLAN A AT 20 PERCENT RATE AND AT 25 PERCENT RATE
(Household 2–Family of Four: Wife's Income One-Third of Total; All Wage Income)

	Federal Adjusted Gross Income	Amount of Kentucky Tax				Differences from 1978 Tax		
		1978 Tax	Plan B Y-1	Plan A 20%	Plan A 25%	Plan B Y-1	Plan A 20%	Plan A 25%
A	$ 7,500	63	26	0	0	-37	-63	-63
B	15,000	232	224	269	336	-8	+37	+104
C	22,500	435	440	495	618	+5	+60	+183
D	30,000	692	800	839	1,048	+108	+149	+356
E	45,000	1,194	1,810	1,736	2,170	+616	+542	+976
F	60,000	1,635	3,126	2,891	3,614	+1,491	+1,256	+1,979
G	90,000	2,421	6,268	5,530	6,913	+3,847	+3,109	+4,492

SOURCE: Don M. Soule, "Two Plans for Integrating the Kentucky and Federal Income Taxes: Implications for Tax Burdens, Revenue Yield, and Simplification," study for Kentucky Legislative Research Commission, November 1979.

and 25 percent rates. The present Kentucky tax is also shown in Table 3. The indicated tax increases are, of course, overstated because no adjustments were made for the offsetting reduction in federal income tax.

Because the suggested rate schedules for Plan B likely will not yield adequate revenue for 1980 and later years, several possible adjustments are considered. The rate schedules could be remodeled, using larger percentage rates or narrower brackets, or a surtax could be added to the suggested rate schedules. In using a surtax, the Kentucky tax would be computed according to the usual method but the amount of tax liability would be increased by a surtax percent.

Summarizing, the two tax simplification plans would produce the traditional exaggeration of revenue growth only if the tax rates are periodically adjusted upward. Under Plan A most households would merely multiply the federal tax amount by the Kentucky rate and thereby determine their Kentucky income tax in one simple computation. If Plan B were adopted, one or more Kentucky tax rate schedules would need to be drawn, with the schedules designed to yield a first year revenue total considered to be adequate. These rate schedules would also need periodically to be adjusted upward. Most households would merely apply the Kentucky rate schedule, or a tax table, to the amount of taxable net income shown on their federal forms and possibly reduce this tax amount by several tax credits.

With either of the proposed plans, the degree of tax simplification would be great for most households, and quite large even for taxpayers required to file additional adjustment schedules. Potentially the most troublesome aspect of the tax simplification proposals is the likely need to make annual upward adjustments in the tax rates.

Footnotes

[1] Don M. Soule and Stephen E. Lile, "Simplification and Modernization Options for the Kentucky Individual Income Tax," September 1979 and Don M. Soule, "Two Plans for Integrating the Kentucky and Federal Income Taxes: Implications for Tax Burdens, Revenue Yield, and Simplification," November 1979. Professor Soule also spoke on a panel considering "Kentucky Income Tax Simplification," at the meeting of the Kentucky Economic Association, October 26, 1979.

[2] See a discussion of this issue in the *Council of Economic Advisors Annual Report, 1979*, Development Cabinet, Commonwealth of Kentucky. The *Annual Report* articles include: Stephen E. Lile, "Kentucky Taxes: How Do They Compare?" pp. 61-73; Lawrence K. Lynch, "Kentucky's Economy: How Does It Compare?" pp. 43-59; and Don M. Soule, "Is Kentucky a Low-Tax or a High-Tax State?" pp. 75-79.

KCEA News & Notes

(continued from page 2)

Charles W. Hultman, Chairman of the KCEA, was one of Kentucky's official participants in a conference of the Southern Growth Policies Board in Charlotte, North Carolina (November 12-14, 1979), entitled "Southern Growth in the 1980s." Dr. Hultman also met in November with the Governor's Economic Development Commission to review studies pertaining to statewide banking and to discuss reorganization of the Development Cabinet. Earlier this autumn Dr. Hultman testified before the Kentucky Housing Corporation Subcommittee of the Legislative Research Commission and before a legislative committee to study workmen's compensation.

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Charles G. Renfro, Acting Executive Director of the KCEA, presented a paper on recent developments in state and regional econometric models and the Kentucky Quarterly Econometric Model at the Southeastern Economic Analysis Conference (SEAC), September 20-21, 1979 in Atlanta. At the October 21-24, 1979 meeting of the Association for University Business and Economic Research (AUBER) in San Antonio, Dr. Renfro chaired a session on "Goal Setting and the Research Center" and was a discussant for the session on "Statistical Software and Systems Available through the Federal Government: An Overview," entitling his written comments: "Reflections on a Theme by Mendelssohn: The LABSTAT Data Base System."

Charles Renfro shared the platform with Gary Wenglowski, partner and director of research for Goldman, Sachs and Co., for the session, "The Economic Outlook," at the fifth annual meeting of the Kentucky Economic Association held in Louisville on October 26, 1979. Dr. Renfro returned to Louisville the following week to be the dinner speaker at the annual meeting of the Kentucky Industrial Development Council and spoke on the topic, "The Economic Outlook and Its Effect on Kentucky's Future Industrial Development."

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The October 1979 issue of *Growth and Change*, published quarterly by the College of Business and Economics, University of Kentucky, contains several articles of probable interest for our readers. These include, among others, articles on municipal revenue forecasting, on methods for calculating regional industry impact multipliers, and on factors affecting land-use change at the urban-rural fringe. Subscriptions to *Growth and Change* may be obtained by writing to the Associate Editor at 644 Maxwelton Court, Lexington, Kentucky 40506.